

## SNF Stabilization and Disposition (RL-0012)

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*Loading boxes of canisters into IP-2 containers in K West*



## Overview

This section addresses work in Project Baseline Summary (PBS) RL-0012, *Spent Nuclear Fuel Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of April 2006.

## Notable Accomplishments

### SNF Stabilization and Disposition (PBS RL-0012)

**Sludge Retrieval and Transfer:** K East Basin sludge containerization project continued ahead-of-schedule progress in vacuuming (4,101 of 8,925 cubicles, 119 ahead of schedule). Bulk sludge containerization is 35 days ahead of the October 2006 DNFSB milestone. The vacuum system was moved to the East Bay and cleanout of the South Loadout Pit (SLOP) was initiated.

K West Basin maintained ahead-of-schedule progress in debris removal (821 of 914 debris units completed, 161 ahead of schedule). K West loaded two IP-2 containers with canister waste boxes in preparation for shipment to the Environmental Restoration Disposal Facility (ERDF).

The Hose-in-Hose (HIH) project completed 28 of 38 construction acceptance tests. Installation of the HIH system was completed on May 23, 2006, and the Integrated Acceptance Testing (IAT) began on May 24, 2006. The HIH project remains 110 days ahead of the May 2007 Defense Nuclear Facilities Safety Board (DNFSB) and Tri-Party Agreement (TPA) milestones for completing sludge transfer from the K East to the K West Basin.

**Legacy Fuel:** Canisters containing scrap/found fuel were shipped from K East to K West Basin via the Fuel Transfer System (FTS) on April 30, 2006.

**Sludge Treatment Project (STP):** The subproject completed the 100 percent design review of the Assay System, issued the Functional Design Criteria update, issued the Corrosion System Control Decisions, completed the Cold Vacuum Drying Facility installation construction estimate updates, and issued a revised request to RL for approval of the British Nuclear Group America (BNGA) Contract Modification 4.

## Issues

**Sludge Transfer – HIH testing:** Construction installation testing revealed fabrication/installation conditions that required work-arounds and resulted in multiple schedule delays. Engineering and construction resources have been applied to remedy deficiencies and the use of Project Management Reserve was authorized to recognize the conditions that were identified in the risk assessment. Additional resources have been assigned to provide oversight of corrective actions and a forward-looking review of the readiness process. FH also initiated a corporate “lessons learned” effort specific to design/fabrication for use and application to the STP.

**Sludge Treatment Risk Mitigation:** The effects of delaying early procurements as directed by RL on April 4, 2006 are under evaluation, with replanning due June 30, 2006. Additional resources have been engaged to gain submittal of the Preliminary Design Safety Analysis as soon as possible and further requests for limited early procurement are under discussions with RL. The STP continues to maintain a focus on the ongoing design review efforts with an eye on opportunities to incorporate lessons learned from the HIH design/build effort.

## FY 2006 Funds vs. Spend Forecast (\$M)

		Projected FY 2006 Funding	FY 2006 Fiscal Year Spend Forecast	Variance
RL-0012	SNF Stabilization & Disposition	\$ 122.8	\$ 121.7	\$ 1.1
<b>Total</b>		<b>\$ 122.8</b>	<b>\$ 121.7</b>	<b>\$ 1.1</b>

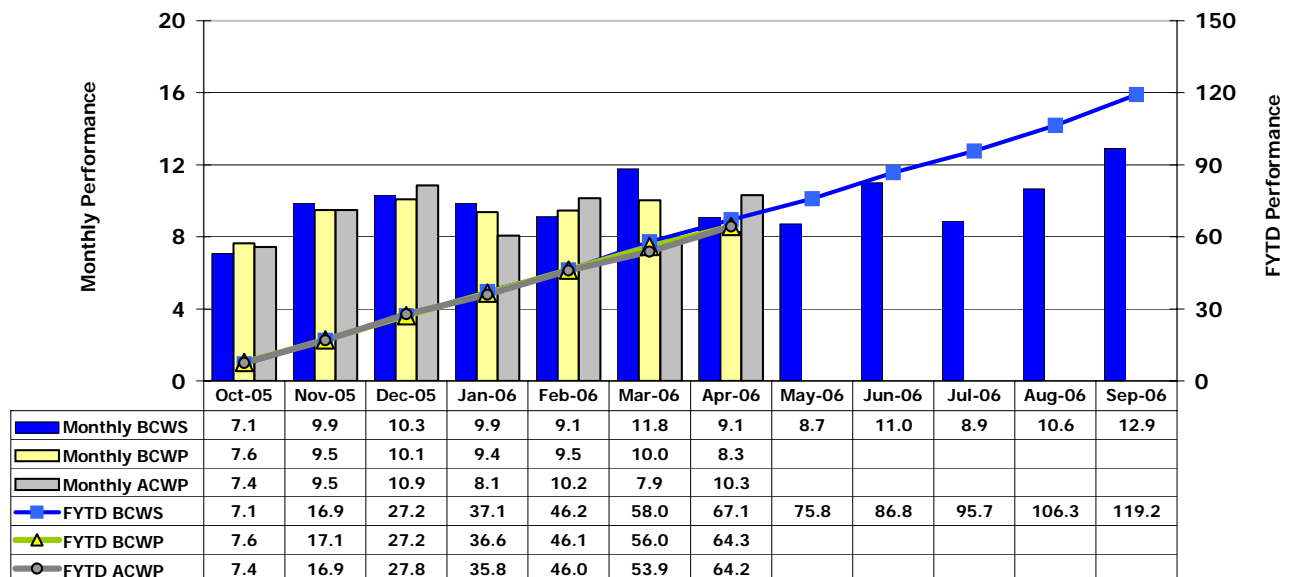
## FY 2006 Schedule/Cost Performance (\$M)

		Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-0012	SNF Stabilization & Disposition	\$67.1	\$64.3	\$64.2	-\$2.8	-4.2%	\$0.1	0.1%	\$119.2
<b>Total</b>		<b>\$67.1</b>	<b>\$64.3</b>	<b>\$64.2</b>	<b>-\$2.8</b>	<b>-4.2%</b>	<b>\$0.1</b>	<b>0.1%</b>	<b>\$119.2</b>

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

- **Schedule Performance (-\$2.8M/-4.2%):** Schedule variance is within threshold.
- **Cost Performance (+\$0.1M/+0.2%):** Cost variance is within threshold.

## Performance Analysis FYTD and Monthly (\$M)



## Milestone Achievement

Number	Milestone Title	Type (TPA/PI/ DNFSB)	Due Date *	Actual Date	Forecast Date	Status / Comments
M-034-33B (S10-05-018)	Complete K East Sludge Containerization	TPA	03/01/05		09/19/06	Behind Schedule: not included in TPA change
RL-12-1.b (S10-99-082)	Transfer K East Sludge to K West Containers	PI	11/30/05		01/03/07	Behind Schedule
RL-12-1.bb (S10-99-963)	Transfer Found Fuel and Fuel Scrap from K East to K West	PI	11/30/05		09/25/06	Behind Schedule
M-034-34 (S10-05-010)	Complete Removal of K East Sludge	TPA	05/31/07		01/03/07	Ahead of Schedule
RL-12-1.ce (S10-99-978)	Complete K East Water Removal	PI	01/31/06		11/02/07	Behind Schedule
RL-12-1.ca (S10-99-967)	Encapsulate 3 K East Bays	PI	02/28/06		07/07/09	Behind Schedule
RL-12-1.cb (S10-99-968)	Remove K East Superstructure	PI	06/30/06		08/14/08	Behind Schedule
M-034-35a (S10-05-011)	Containerize K West Sludge	TPA	07/31/07		04/06/07	Ahead of Schedule
M-034-35b (S10-05-011)	Complete Final Pass	TPA	01/31/08		07/31/07	Ahead of Schedule
RL-12-1.cc (S10-99-969)	Complete First K East Basin Section Disposal	PI	07/31/06		12/12/08	Behind Schedule
RL-12-1.bd (S10-99-965)	Commencement of Floor and Canister Sludge Treatment	PI	07/31/06		07/10/08	Behind Schedule
RL-12-1.ci (S10-99-971)	Decon/Immobilize K West Basin Wall (7600 sq. ft.)	PI	08/31/06		12/28/09	Behind Schedule
RL-12-1.bc (S10-99-081)	Remove Found Fuel and Scrap	PI	09/30/06		07/18/08	Behind Schedule
RL-12-1.cf (S10-99-972)	Complete K East Basin Removal	PI	09/30/06		07/07/09	Behind Schedule
DNFSB 119E (S10-05-014)	Complete K East Sludge Consolidation	DNFSB	10/31/06		09/19/06	Ahead of Schedule
DNFSB 120E (S10-05-015)	Complete K East Basin Sludge Removal	DNFSB	05/31/07		01/03/07	Ahead of Schedule
DNFSB 122E	K East Final Pass Sludge Removed	DNFSB	05/31/07		01/03/07	Ahead of Schedule
DNFSB 119W (S10-05-016)	Complete K West Sludge Containerization	DNFSB	07/31/07		05/03/07	Ahead of Schedule

\* DNFSB dates reflect Implementation Plan update; TPA dates reflect change package M-34-05-04; forecast dates are current working level schedules.